PALLID CUCKOO OBSERVATIONS, 1949

Report by J. GENTILLI, Nedlands.

The request by "The Naturalists" in their broadcasting session through station 6PR for a report on the first appearance or call of the Pallid Cuckoo *(Cuculus pallidus)* met with a very satisfactory response. By the end of the season 80 letters had been received. Only two or three could not be used because they were too vague ("I heard it three weeks ago"; "I saw it in January and February"); one gave a description of a bird which certainly was not the Pallid Cuckoo; one described a call which obviously belonged to another species.

Correspondents mostly used the standard name—Pallid Cuckoo—but many also referred to it as "rain bird", some as "weather bird", a few as "storm bird", one as "wet bird" and one as "spring bird". The name "scale bird" given in the *Handbook of Birds of Western Australia* and the unfriendly "brain-fever bird" were never used.

This year the Pallid Cuckoo was first reported *seen* at Cookernup on May 11 and at Yanchep on June 5. The latter report proved incorrect, because the bird seen was the Fantailed Cuckoo. It is not impossible that the earlier report may also prove erroneous, it being rather difficult to identify the bird at sight from a distance.

The dates when the Pallid Cuckoo was first *heard* were:

JUNE—
3—Mooliabeenee
14—Marybrook
19—Armadale, Konnongorring
23—South Bunbury
25—Coolup, Subiaco
27—Kaloorup, Nedlands, Yarloop
28—Boyanup, Elgin
29—West Midland, West Swan, Wokalup
30—Glen Forrest

JULY—
1—Busselton
2—Albany
3—Pintharuka, Thomson's Brook
4—Bassendean, Harvey
5—South Belmont
6—Kalamunda, Pithara
7—Hamel

JULY—
9—Bo Allia (Busselton area), Claremont
16—Waddi Forest
18—Greenbushes
19—Waterloo
20—Caversham
21—Bridgetown, Donnybrook, Jitarning, Margaret River
23—Mandurah
25—Benger

AUGUST—
6—Pinjarra
7—Burekup
10—Bunbury
11—Hill View (Moora)
12—Perenjori
25—North Cottesloe
31—Lake Grace

Obviously so many records of first calls provide a confusing plenty. A simplified pattern may however be obtained by considering only the very first calls recorded in any large area. The map published herewith shows this pattern as it is tentatively interpreted. The Pallid Cuckoo arrives from the north and travels southwards through the northern agricultural districts early in June. Very few calls are recorded because the weather is too dry, as is shown by the diagram published with this report. By the middle of June the bird has reached the far South-west, and a few days later more favourable weather conditions result in many first calls being recorded. It is only late in July that the eastern agricultural districts are wet enough to provide suitable conditions for the bird's activities, and the first record (at Jitarning) is on July 21, the second (at Lake Grace) as late as August 31.

Records from Pintharuka (July 3), Pithara (July 6) and Waddi Forest (July 16) show that widespread calls do not occur in the northern agricultural areas until after conditions have been favourable, notwithstanding the earlier presence of the bird in the districts while on the way south.

Summing up, there seems to be a considerable delay between the first arrival of the Pallid Cuckoo and its first calling in the northern agricultural districts, the arrival taking place early in June or even earlier, the first widespread calling taking place towards the middle of July. In the South-west on the contrary there is no lag between the arrival of the Pallid Cuckoo and its first

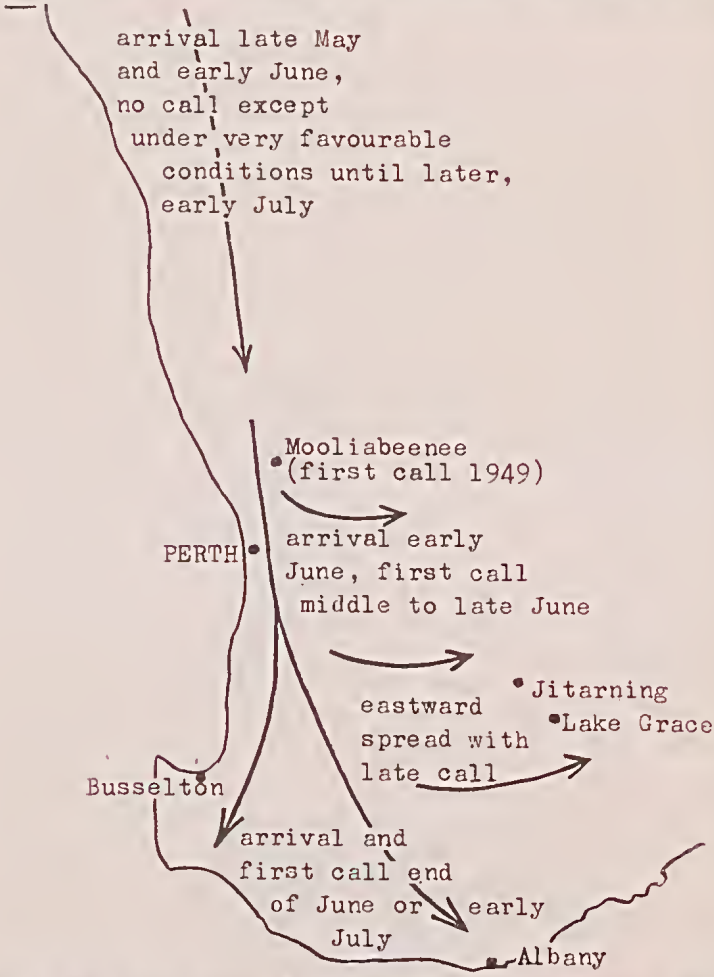

Fig. 1. The map shows the supposed migration routes followed by the Pallid Cuckoo. The bird is much more numerous and more active in the South-west, where its arrival almost coincides with the most favourable weather. The drier districts have recorded the bird later in the year, and not as frequently.

calling, because the arrival takes place towards the end of June, when moisture conditions are already favourable.

One may possibly suggest that the exceptionally dry weather experienced in June this year delayed the opening of the calling season for the bird. The very late records for Perenjori and Lake Grace may show that the bird perhaps refrains from calling until adequate moisture for "nesting" activities is available. On the other hand, Mrs. D. Gibbs (Ferguson, via Dardanup) was told that the Pallid Cuckoo "whistled all through the drought year of 1914". A correspondent from Henley Park, West Swan, observes that it starts calling "about the middle of June, but does not whistle very much until August and September." Actually this correspondent says that this year's date of first calling, June 29, is the earliest he has ever recorded. This being so, the particular dryness of June 1949 does not seem to have affected the calling of the bird.

Mr. J. M. Harvey, from Thomson Brook, near Donnybrook, mentions that the Pallid Cuckoo's first calls, on July 3 and July 4, were not very persistent. Having observed the bird for some 40 years, Mr. Harvey states that "it generally does not appear until the wet weather sets in constantly." Both the rain and the Cuckoo's call were intermittent at the time of the record, and Mr. Harvey mentions that the call becomes frequent with the appearance of a kind of caterpillar which is the Pallid Cuckoo's favourite food.

Mr. Harvey also noticed "that the bird's frequent call generally foretells very wet weather. Whether it is because these caterpillars are very plentiful under such conditions, or that such weather pleases this bird", one cannot determine. The Pallid Cuckoo usually stays in the area "all the spring even after the caterpillars have gone and does call then during fine weather but during a spell of damp showery weather the call livens up more constantly." In the 1948-1949 summer "it was calling between Christmas and new year", when there came "a rather wet week".

Usually the Pallid Cuckoo "disappears when summer really sets in. Most years it first appears during July only when the constantly wet season starts". This is the first year Mr. Harvey noticed the bird's call before such weather conditions, but as he correctly suggested in his letter, July was to see a succession of many very wet days.

The relationship between the bird's call and the weather is also suggested by Mrs. T. Murray, of Wellesley Ford, Harvey. Mrs. Murray "heard it about 10 a.m. on Sunday, July 10, and then again in the afternoon". On Monday, July 11 "it was to be heard practically all day". On the following day, Tuesday, July 12, the weather was very wet, and judging from this weather, Mrs. Murray concluded, "the bird is very aptly named".

Mr. Allan Gibb also suggests some relationship between the weather and the call of the Cuckoo. On August 27, Mr. Gibb saw two Pallid Cuckoos "flying, and appearing very unsettled . . . and whistling continuously". Judging from previous experience Mr. Gibb forecast a storm "and by all accounts that proved correct".

An observer from Bridgetown states that the Pallid Cuckoo does not give a good indication of the weather there, "for it would take a wizard to do that here". In Northam, where the same observer lived for eight years, one "could depend on it raining very shortly after hearing him".

Master Kevin Powell, writing from Armadale, states that the Pallid Cuckoo visits him quite often and whistles in an old tree, and then people "know that rain is near".

Nearness of the rain may be a sufficient factor. It is true that an observer from Benger recorded the call of the Cuckoo "on July 25 at about 10 o'clock in the morning, the first fine morning experienced for several days, no wind and almost cloudless sky", but rain during the days immediately preceding and following might well be sufficient to create favourable conditions even during an interval of clear weather. The weather map for July 25 shows widespread rains throughout the South-west.

It was deemed desirable to analyse the call records in conjunction with the weather maps for June and July. The diagram published herewith shows the result of this anaylsis in a graphic form.

The first call, recorded at Mooliabeenee on June 3, corresponds to the first general rains and to an invasion of *Tm* (tropical maritime) air.* The rains lasted about seven days, gradually affecting smaller and smaller areas, and finally died out wih the arrival of *Tc* (tropical continental) air. No further call of the Cuckoo was re-

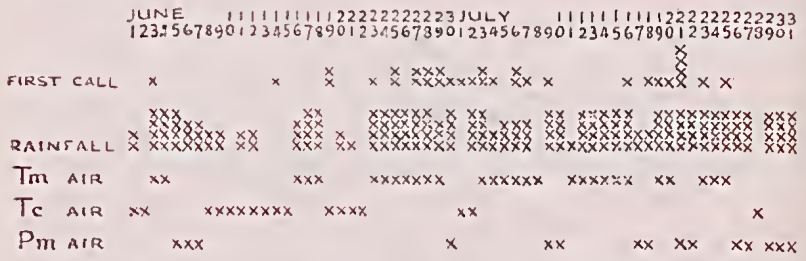

Fig. 2. The results of Pallid Cuckoo observations tabulated so as to make comparisons and deductions as easy as possible. The first line shows the dates in June and July. The second line shows when the first call of the Cuckoo was recorded in any locality (the metropolitan area being counted as one locality for this purpose). The third line shows the rainfall for each day: one cross means local falls, two crosses several local falls; three crosses widespread rains; four crosses general rains. The next lines show the days of weather control by *Tm* (tropical maritime), *Tc* (tropical continental) and *Pm* (polar maritime) air respectively. Tropical maritime air is warm and moist, tropical continental air is dry and may be hot in summer and cool in winter, polar maritime air is cool and moist. It may be seen that the heaviest falls of rain are associated with *Tm* air, and are associated with the beginning of calling activities of the Pallid Cuckoo.

* The classification of air masses is based on the daily weather map showing position of fronts and wind directions, and may be approximate in some cases when modified air masses are involved.

corded until June 14. After eight days of *Tc* control, a stream of *Tm* arrived from the north-north-west, and brought general rains. Two more call records followed immediately, on the day when *Tc* air again took control of the weather. There were no further call records during the following three days—June 20, 21, 22—when there were *some* local rains, but the air was on the whole dry.

From June 23 to June 30, there were new call records in ten different localities (metropolitan area excluded). This was the first long period of *Tm* control and general rains. The rains continued until July 7, although *Pm* (polar maritime) air seemed to control June 30 and *Tc* July 1 and 2. By July 7, the first call of the Cuckoo had been recorded in 22 localities out of 39 outside the metropolitan area.

There were no records from July 10 to July 15. Then 10 first records followed within ten days, with four on July 21 alone. The weather had been controlled by maritime air masses throughout this period, mainly *Tm* until July 25, mainly *Pm* from July 26 to July 31.

The analysis was not continued into August because first records in that month were far less significant except in the drier districts, for which not enough information was available.

Much more information is required before any conclusion may be reached, but it might be suggested at this stage that *Tm* air and the general heavy rains which it usually brings provide the best conditions for the activities of the Pallid Cuckoo, if the call of the male bird may be taken as an indication of these activities.

Does the Pallid Cuckoo arrive at different times in different years?

Mr. A. G. Byrd, writing from Harvey, states that he usually hears it "about the third week in June or early in July". The earliest date Mr. Byrd remembers is June 10, about 1945. The chance element in these observations should not be overlooked. Mr. Byrd himself states that this year he heard the Pallid Cuckoo call early in the morning of July 4, "then did not hear it again until August 1," and since then has heard it every day calling throughout the day. However, the Pallid Cuckoo was recorded as calling about July 7 near Hamel, on July 9 at Bo Allia (Busselton), on July 18 at Greenbushes, on July 19 at Waterloo, on July 21 at Bridgetown and Donnybrook—all localities which are not very far from Harvey. The call recorded by Mr. Byrd on July 4 might have easily been overlooked.

There are very few records from the northern and eastern wheatbelt. It may well be that the Pallid Cuckoo does not reach the eastern areas, preferring the wetter districts of the South-west. On the other hand, in order to reach the latter region after coming from the north, the bird should fly over the northern wheatbelt. A report from Mrs. W. Hogbin may bear this out. Writing from Waddi Forest, Coorow, Mrs. Hogbin states: "I heard the first call here on July 16. Strangely enough I have only heard it

the one morning. It called for four or five times and then no more, but my lad thought he saw it the same day. . . . It never stays long but I think previously I have heard it staying about for a couple of days."

Could it then be assumed that Pallid Cuckoos only stop in the northern agricultural areas on their way south? Or is it that the broadcasts appealing for observations were not extensively heard in these areas? This may be possible, but there are about four times as many records from places south of Perth as there are from places north of Perth, within the same radius. The difference is quite significant. The call of the Pallid Cuckoo is much more frequent in the South-west than in any other region. Is it because the bird itself is more frequent, or stays longer, or is it because the call is associated with "nesting" activities and these activities are most easily carried out in the wetter and richer South-west?

Only constant and patient observations in the drier districts and in the North-west and Kimberleys may provide some clue as to the migration of this fascinating bird. Observers in the South-west could perform a useful service to science by recording the call of the Pallid Cuckoo over a longer period, preferably throughout the season, so that the length of "residence" of the bird may be known.

NOTES ON THE ANT-LIONS OF THE SUB-FAMILY MYRMELEONTINÆ

By WALLACE H. MATHEWS, South Perth.

The genus *Acanthaclisis* and its allies *Mestressa* and *Cosina*, in the Ant-lion sub-family of Myrmeleontinae, include ten species of large size. They are handsome grey and whitish insects with a very hairy body and a wing span of from 3½ to 7 inches. Some of the larger species of these insects come from the inland deserts of our continent.

Fig. 1. Larva of *Acanthaclisis fundata*. x 3.